

REMARKS

This application includes claims 1-53. Claims 1, 10, 23, 28-30, 32-34, 37-47, 49 and 51-53 are hereby amended. No new matter has been added. Reconsideration is respectfully requested.

Applicant thanks Examiners Hoang and To for the courtesy of a telephone interview with Applicant's representative, Daniel Kligler (Reg. No. 41,120). At the interview, Dr. Kligler presented a draft amendment to independent method claims 1 and 23. The Examiners agreed that if independent apparatus claims 28 and 49 were likewise amended, the rejections of the claims under 35 U.S.C. 112 and 35 U.S.C. 102(b) would be overcome. Examiner To also requested that the word "adapted" be removed from the apparatus claims. Applicant has amended the claims in this application as agreed in the interview.

Claims 1, 2, 23, 28, 29 and 49 were rejected under 35 U.S.C. 112, second paragraph, because the Examiner considered the use of the word "alternation" in these claims to be unclear. Applicant has therefore amended independent claims 1, 23, 28 and 49, as agreed in the interview, to clarify specifically that in the course of partitioning the data among the subchannels, a first word may be mapped to a first subchannel, a second word to a second subchannel, and a third word either to the first subchannel or to a third subchannel. This sort of alternation between two subchannels is implemented (in a simple embodiment) in Table I on page 16 of the present patent application and is shown explicitly in the example on page 17. Extension of the alternation to three channels is shown in Fig. 3 and described on page 18, for example.

Claims 10 and 37 were also rejected under 35 U.S.C. 112, second paragraph, because the Examiner found the reference in the claims to "changing the partitioning among the subchannels while transmitting the words of the data,

responsive to a change in one or more of the subchannels" to be unclear. Applicant has therefore changed the phrasing of these claims so as to clarify their meaning: that in response to a change in one or more of the subchannels while transmitting the words of the data, the subchannel demultiplexer may change the partitioning of the data among the subchannels.

In view of the above amendments, all of the claims in this application are now believed to meet the requirements of 35 U.S.C. 112.

Claims 1-5, 8-11, 22-25, 28-32, 35-38 and 48-51 were rejected under 35 U.S.C. 102(b) over May et al. (U.S. Patent 5,835,536). May describes a method and apparatus for generating time-domain discrete multi-tone symbols (abstract). Although May refers to multiple subchannels, it was agreed in the interview that May neither teaches nor suggests the kind of mapping of successive words of data to the subchannels in alternation, as the term is now defined in amended independent claims 1, 23, 28 and 49. Therefore, claims 1-5, 8-11, 22-25, 28-32, 35-38 and 48-51 are believed to be patentable over May.

Claims 10, 14, 37 and 41 were rejected under 35 U.S.C. 103(a) over May in view of Gross et al. (U.S. Patent 6,266,348). In view of the patentability of the amended independent claims, as noted above, dependent claims 10, 14, 37 and 41 are also believed to be patentable.

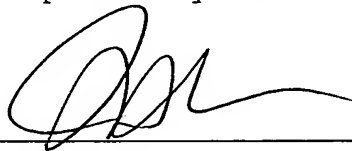
Claims 6, 7, 12, 13, 15-21, 26, 27, 33, 34, 39-47, 52 and 53 were objected to for depending from a rejected base claim, but were deemed to recite allowable subject matter. In view of the patentability of the amended independent claims, Applicant believes that dependent claims 6, 7, 12, 13, 15-21, 26, 27, 33, 34, 39-47, 52 and 53 are also patentable, and this objection should therefore be withdrawn.

Applicant has studied the additional references made of record by the Examiner, and believes that all the claims

now pending in this application are patentable over these references, whether the references are taken individually or in any combination.

Applicant believes the amendments and remarks presented hereinabove to be fully responsive to all of the objections and grounds of rejection raised by the Examiner. In view of these amendments and remarks, Applicant respectfully submits that all of the claims in the present application are in order for allowance. Notice to this effect is hereby requested.

Respectfully submitted,



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